WHAT IS CLAIMED IS:

1. A TCP/IP·mobile communication network transmission and reception system for conducting transmission from a TCP/IP communication network to a mobile communication network, comprising:

a provider access server for the connection of a TCP/IP communication network to receive an IP packet in which an IP address of a mobile communication terminal as a destination of transmission from the TCP/IP communication network is stored at a header; and

a mobile communication switching system for extracting an IP address from a header of an IP packet sent from the provider access server and searching for a user's telephone number corresponding to the IP address to send an originating signal and a selection signal based on the searched user's telephone number to a mobile communication network on the side of said mobile communication terminal.

2. The TCP/IP·mobile communication network transmission and reception system as set forth in claim 1, wherein

said mobile communication switching system including

a time-division switch for conducting time-division switching of line switching,

a provider connection interworking function device for extracting an IP address of the mobile communication terminal as a transmission destination stored in an IP packet sent from the provider access server and searching for a user's telephone number corresponding to the IP address to output a selection signal and an originating signal based on the searched user's telephone number,

an originating signal detection circuit for detecting an originating signal from the provider connection interworking function device,

a selection signal reception circuit for receiving a selection signal from the provider connection interworking function device, and

a calling processing device for executing control to send an originating signal from said originating signal detection circuit and a selection signal from said selection signal reception circuit to the mobile communication network on the side of said mobile communication terminal.

3. The TCP/IP·mobile communication network transmission and reception system as set forth in claim 2, wherein

said provider connection interworking function device including

a terminating processing circuit for conducting

terminating processing of an error control protocol on the side of a radio line,

an asynchronous terminating processing circuit for conducting terminating processing with respect to communication on a serial asynchronous line with the provider access server for TCP/IP communication network line connection,

a synchronous pattern detection circuit for detecting a synchronous pattern to determine first arrival of an IP packet transferred through the asynchronous terminating processing circuit,

an IP address/telephone number converting circuit for searching for a user's telephone number corresponding to an IP address of the mobile communication terminal as a transmission destination which is stored in a header of an IP packet from the synchronous pattern detection circuit, and

a transmission signal sending circuit for sending out an originating signal and a selection signal to the mobile communication switching system based on a user's telephone number from the IP address/telephone number converting circuit.

4. The TCP/IP·mobile communication network transmission and reception system as set forth in claim 3, wherein

said IP address/telephone number converting

circuit including

an IP address/telephone number conversion table which stores a user's telephone number corresponding to an IP address.

5. The TCP/IP·mobile communication network transmission and reception system as set forth in claim 1, wherein

said mobile communication network is

a mobile communication network in a personal digital cellular telecommunication system (PDC).

6. The TCP/IP·mobile communication network transmission and reception system as set forth in claim 1, wherein

said mobile communication network is

a mobile communication network to which the PIAFS standard in the personal handy phone system (PHS) is applied.

7. The TCP/IP·mobile communication network transmission and reception system as set forth in claim 4, wherein

an IP address and a user's telephone number in said IP address/telephone number conversion table are

set by a manager of the mobile communication network accommodating the mobile communication switching

system.

8. The TCP/IP·mobile communication network transmission and reception system as set forth in claim 4, wherein

an IP address and a user's telephone number in said IP address/telephone number conversion table are

set through a terminal accommodated in the TCP/IP communication network by the execution of a communication control protocol for the IP address/telephone number conversion table of the IP address/telephone number converting circuit.

9. The TCP/IP·mobile communication network transmission and reception system as set forth in claim 1, wherein

said provider access server and said mobile communication switching system

conducts switching connection for the transmission from the mobile communication terminal accommodated in the mobile communication network to the TCP/IP communication network.

10. The TCP/IP·mobile communication network transmission and reception system as set forth in claim 1, further comprising,

as well as said mobile communication terminal, a

data terminal mounted at least with a browser, and a modulator and demodulator for enabling said data terminal to conduct transmission to the TCP/IP communication network through the mobile communication terminal, wherein

data including letters and images by means of IP packets is transmitted from said TCP/IP communication network.

11. A method of conducting transmission from a TCP/IP communication network to a mobile communication network, comprising the steps of:

sending out an IP packet in which an IP address of a mobile communication terminal as a transmission destination is stored at a header from a TCP/IP communication network;

receiving the IP packet from the TCP/IP communication network; and

extracting the IP address from the header of the received IP packet and searching for a user's telephone number corresponding to the IP address to send an originating signal and a selection signal based on the searched user's telephone number to a mobile communication network on the side of said mobile communication terminal.

12. The method of conducting transmission from a

TCP/IP communication network to a mobile communication network as set forth in claim 11, wherein

said mobile communication network is a mobile communication network in a personal digital cellular telecommunication system (PDC).

13. The method of conducting transmission from a TCP/IP communication network to a mobile communication network as set forth in claim 11, wherein

said mobile communication network is a mobile communication network to which the PIAFS standard in the personal handy phone system (PHS) is applied.

14. The method of conducting transmission from a TCP/IP communication network to a mobile communication network as set forth in claim 11, wherein

switching connection for the transmission from the mobile communication terminal accommodated in the mobile communication network to the TCP/IP communication network is conducted.